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## ABSTRACT

In interpersonal attraction, studies and judgment research evaluation of a stimulus is often a function of the context within which the stimulus appears. The first experiment was designed to examine "contrast effects" (shifts in the rated value of a stimulus away from the contextual values) when all attitudinal information was received from two strangers before attraction responses were assessed and each stranger expressed agreement or disagreement on different topics. Subjects were 40 students pretested on a 44-item attitude scale. Each subject listened to tape recorded responses of two strangers who responded alternately to 22 items on the attitude questionnaire and then the subjects responded to each on the Interpersonal Judgment Scale. With 10 subjects in each group, four combinations of agreement (A) and disagreement (D) were created. (AA,DD=no contrast; AD,DA= contrast). Agreers were more attractive when paired with agreers than when paired with disagreeers and disagreeers were less attractive with agreers than when paired with disagreeers. Thus when stimulus and context were inconsistently paired, a contrast effect was evident. The second study partially replicated the above but used sequential mimeographed attitude responses. A contrast effect was again found. Findings are discussed in terms of the Stapert-Clore drive arousal and reduction hypothesis. (RM)

Stimulus Variables and Interpersonal Attraction:

The Stimulus Context<sup>1</sup>

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Although we constantly remind our students that psychology is a relatively new science with a short history, at least one aspect of human functioning has been systematically investigated for over 130 years. Dating from the work of Weber (1834) and Fechner (1860), the study of judgment processes has attracted the interest of many of psychology's most illustrious (if not infamous) individuals (e.g. Wundt, Titchener, Helson, Sherif, etc.). From an early concern with the relationship between the physical magnitudes of stimuli and their judged magnitudes, the study of the judgment process has been extended to such topics as clinical inference and judgment (Meehl, 1954), social judgment (Sherif and Hovland, 1961), and moral judgment (Parducci, 1968).

A consistent finding in studies of judgment processes is that the judged brightness, loudness, pitch, size, numerosity, etc. of a given target stimulus is a function not only of the objectively measured attributes of the target but also of many aspects of the context within which the stimulus is presented. For example, the position of the stimulus in a series of stimuli, the objective values of accompanying stimuli, the method of presentation, and other factors are known to affect the judgment of target stimuli (Woodworth and Schlosberg, 1954).

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Inasmuch as interpersonal attraction responses can be considered as involving judgmental behavior, I propose today to discuss some recent findings which, at least descriptively, resemble those in the judgment literature.

The majority of interpersonal attraction studies have focused on the relationship between the proportion of attitudes expressed by a single stranger which are similar to those of a subject and the subject's attraction to the stranger. The results of the latter studies are well known but only recently has the problem of multiple judgments concerning a single stranger and multiple judgments concerning multiple strangers been considered. In impression formation, as well as judgment research, it is well known that the evaluation of a given stimulus is often a function of the context within which the stimulus appears. For example, the studies of Anderson and his associates have demonstrated that the judged favorability of target personality traits is affected by the favorability values of additional traits within the series. In judgment studies it is found that ratings of line lengths and tone pitch are affected by the length and pitch contexts of accompanying stimuli.

In situations in which a given stimulus is presented to be rated or judged in contexts of higher or lower values, at least two types of context effects have been observed. When the judged or rated value of the target stimulus shifts in the

direction of the context, the shift is descriptively labeled "assimilation". On the other hand, "contrast" effects refer to shifts in the rated value of a target stimulus away from the contextual values. Many controversies have arisen over the exact conditions under which assimilation or contrast effects may be expected to occur and the issues are far from settled at this point. Suffice it to say that my usage of the terms "assimilation and contrast effects" are offered only as descriptive phrases referring to directional judgment shifts toward or away from context stimuli.

When interpersonal attraction studies are conducted utilizing multiresponse, multistranger, or a combination of both strategies, the possibility of context effects on attraction responses must be considered. For example, when dealing with attitude similarity as the stimulus with multiple strangers manifesting varying degrees of similarity to the subject, it might be expected that the attraction response to one stranger would vary as a function of the similarity expressed by the contextual additional strangers. All of the following studies have utilized some variant of the above general design and all have reported "contrast" effects with respect to attraction ratings.

Two studies (Worchel and Schuster, 1966; Schuster, 1966) utilized a design which required subjects to receive agreements (A) or disagreements (D) in various combinations and sequences

from four separate strangers prior to responding to all four strangers in terms of attraction. Each study involved the same three sequences of agreement and disagreement (AAAA, AD DD, DD DA). In each study it was found that A strangers presented in a context of three D strangers received higher attraction ratings ( $X = 6.05$  and  $6.03$ ) than A strangers in the context of three other A strangers ( $X = 4.88$  and  $4.74$ ) (e.g. a contrast effect in attraction ratings was found). (The results concerning D strangers are difficult to interpret due to inconsistent findings across the two experiments).

In a third study, Stapert and Clore (in press) hypothesized "(1) that the attractiveness of an agreeer would be an increasing function of number of disagreeers preceding him, and (2) that the attractiveness of a disagreeer would be a decreasing function of the number of disagreeer's preceding him." (page 7). In the experiment subjects were exposed to the attitudinal responses of bogus strangers such that the number of disagreeers preceding a final agreeer was varied across groups (AAAA, DA, DD A, DD DA). Attraction responses were assessed after each exposure to a stranger's attitudes. Although the first hypothesis was not supported, it was found that attraction responses to A strangers who followed D strangers were significantly more positive than those to A strangers who followed other A strangers. That is, a contrast effect was evident in that A's in the context of D's were liked more ( $X = 11.59$ ) than A's in the context



of A's ( $X = 8.49$ ). In addition, it was found, contrary to hypothesis 2, that attraction toward D's increased across trials. Stapert and Clore interpret their results quite neatly from the standpoint of differential drive arousal and drive reduction associated with disagreeers and agreeers, respectively.

The findings of the foregoing studies are not directly comparable for a number of reasons. First, in the Worchel and Schuster (1966) and Schuster (1966) studies attraction responses were assessed after the subject had been exposed to all attitudinal information while in the Stapert and Clore (in press) experiment attraction responses were obtained following each stranger's responses. Byrne, Lamberth, Palmer, and London (in press) have recently demonstrated that sequential assessment produces attraction responses that significantly differ from those assessed only after all attitudinal information is received. Thus, it might be suggested that subjects in the Worchel and Schuster studies were exposed to the total stimulus context before responding and that the total stimulus context was not established (but sequentially changing) in the Clore experiment until the subjects' responses to the final stranger were assessed. Therefore, subjects in the former experiments had an opportunity to "compare" each stimulus (person) with each other stimulus before responding, while subjects in the latter study could compare each stimulus only with the preceding stimuli. Stapert and Clore (in press) point out other possible

procedural variations which may determine whether the "contrast effect" is obtained. They point out that the disagreeer and agreeer may be the same person or different people, and that the disagreement and agreement may be on the same or different issues. The following two studies may aid in clarifying the effects of some of these variations.

### Experiment I

This study was designed to examine "contrast effects" in a situation in which (1) all attitudinal information is received from each of two different strangers before attraction responses are assessed and (2) each stranger expresses agreement or disagreement on different attitudinal topics.

Subjects for the first experiment were forty male and female students from introductory psychology classes at Kansas State University who had been pretested on a 44-item attitude scale. Each subject was seen separately and asked to listen to the tape-recorded responses of two individuals each responding to 22 items of the attitude questionnaire. Subjects were instructed that one individual had recorded his responses to the odd-numbered items and the other to the even-numbered items. Using two recorders with remote controls the experimenter then played the tapes alternating between "person A's" responses (odd) and "person B's" responses (even) until the subjects had heard 22 of each person's attitudes. Half of the subjects in each condition described below heard a male voice on the odd

items and a female voice on the even items and for the other half the reverse was true. After hearing all 22 attitudes of each stranger subjects responded to each on the IJS. With ten subjects in each, four combinations of agreement ( $A = .91 = 20/22$  similar attitudes) and disagreement ( $D = .13 = 4/22$  similar attitudes) were created (AA, DD, = no contrast; AD, DA = contrast).

Attraction responses were examined in a  $2 \times 2$  analysis of variance design with two levels of proportion of similar attitudes and two levels of similarity context (contrast-no contrast). That is, the four cells were composed of responses to (1) A's paired with A's, (2) D's paired with D's, (3) A's paired with D's, and (4) D's paired with A's ( $N = 20$  responses per cell). The mean attraction responses are shown in Figure 1. Analysis of variance of these data revealed highly significant differences due to similarity-dissimilarity ( $F = 45.11$ ,  $df = 1/76$ ,  $p < .001$ ) and the interaction ( $F = 9.26$ ,  $df = 1/76$ ,  $p < .001$ ) between similarity-dissimilarity, and stimulus context. The main effect differences due to stimulus context were nonsignificant ( $F < 1$ ). Thus, agreeers were more attractive when paired with disagreeers than when paired with other agreeers and disagreeers were less attractive when paired with agreeers than when paired with other disagreeers. When stimulus and context were inconsistently paired, response to the stimulus shifted in direction away from the context and a contrast effect was evident.



The results of the above study indicate, therefore, that the "contrast" effect may be demonstrated when (1) agreements and disagreements occur on different attitudinal items, (2) responses are obtained after the attitudinal responses of all strangers are presented, (3) the agreeer and disagreeer are different people, and (4) when attitudinal information from multiple stimulus persons is presented "simultaneously" rather than sequentially.

Since it was not possible to examine the effect of varied stimulus context on attraction toward D strangers (independent of sequential variations) in the studies reviewed earlier and because it was desirable to partially "replicate" the above findings using sequential mimeographed attitudinal responses rather than "simultaneous" recorded responses, the following study was undertaken.

### Experiment II

Subjects were again 40 students who had been pretested on the 44-item attitude scale. In the experimental session, subjects were asked to examine the attitudinal responses of two anonymous strangers and, after reading both strangers' responses, to respond to each on the IJS. As in the first experiment, four combinations of A (.91 = 40/44 similar attitudes) and D (.11 = 8/44 similar attitudes) were created (AA, DD = no contrast; AD, DA = contrast). Subjects were instructed to respond to the strangers in the order in which the scales were presented.

As in the above experiment, attraction responses were analyzed in a 2(proportion) x 2(context) analysis of various design with 20 responses in each cell. The mean attraction responses are depicted in Figure 2. The analysis of variance again revealed the highly significant proportion effect ( $F = 119.06$ ,  $df = 1/76$ ,  $p < .001$ ), a nonsignificant context effect ( $F = 1$ ) and a significant effect due to the interaction of proportion and context ( $F = 20.07$ ,  $df = 1/76$ ,  $p < .001$ ). In that responses to stimuli paired with inconsistent contexts shifted away from the context, a contrast effect was again found.

It appears that the effect may be found utilizing (1) "simultaneous" as well as sequential presentation of stimuli, (2) responses assessed following each stimulus or after all stimuli are presented and, (3) agreements and disagreements on the same or on different attitudinal items. I would like to stress again that I am using the term "contrast" only to describe directional displacements of attraction responses. At the explanatory level, the drive arousal and reduction hypothesis of Stapert and Clore (in press) seems useful in accounting for these effects.

The Stapert-Clore hypothesis is essentially a "sequential" hypothesis in that it suggests that the magnitude of drive arousal is a sequentially decreasing function across a series of disagreeers and that drive reduction also sequentially decreases across a series of agreeers. Thus, response to an initial dis-

agreer is more negative than to subsequent disagreeers due to the greater amount of drive arousal associated with the former. Likewise, response to an initial agreer is more positive than to subsequent agreeers due to decreasing drive reduction. In addition, responses to A's preceded by D's are more positive than to A's preceded by A's since in the former condition a greater amount of drive reduction is associated with the A person. It is also implied (although not clearly tested or supported) that responses to D's preceded by A's would be more negative than responses to D's preceded by D's since in the former condition drive arousal associated with D is greater due to the precedence of A's which have reduced drive to a minimal level.

When agreements and disagreements are differentially associated with multiple stimulus persons in a "simultaneous" fashion as in the first experiment described here, however, a slight modification of the "sequential" hypothesis appears necessary to account for the findings. In the AD condition the A person does not precede the D person but is presented essentially at the same time and vice versa with respect to the DA condition. A is simply presented in a context of D and D is presented in a context of A. Ignoring for the moment the few disagreements in the A group and the few agreements in the D group, a sequencing of single A's (drive reduction) associated with one stimulus person alternating with single D's (drive arousal) associated with the other stimulus person [A<sub>1</sub> (drive

reduction) -  $D_2$  (drive arousal) -  $A_1$  -  $D_2$ , etc.] would occur providing a situation in which a large amount of drive reduction is consistently produced by A and a large amount of drive arousal is consistently produced by D. Thus, as opposed to the AA and DD conditions in which the magnitudes of drive reduction (AA) or drive arousal (DD) associated with each stimulus person are sequentially decreasing, each stimulus person in the AD and DA conditions is repeatedly associated with either a large amount of drive reduction or arousal and consequently attraction responses are more extreme than in the AA and DD conditions. A differential drive arousal-drive reduction hypothesis appears to handle the results quite nicely.

For those with a practical or applied bent, this series of studies would seem to produce at least one small gem of wisdom. That is, if one is interested in evoking the most positive response from another, a good tactic would be to not only agree with the other person but to agree with him when all others are disagreeing. The reverse would also be expected to hold. For those interested in evoking very negative responses from others the advice is to be obnoxious and disagree when all others are agreeing.

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## Footnotes

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Figure 1

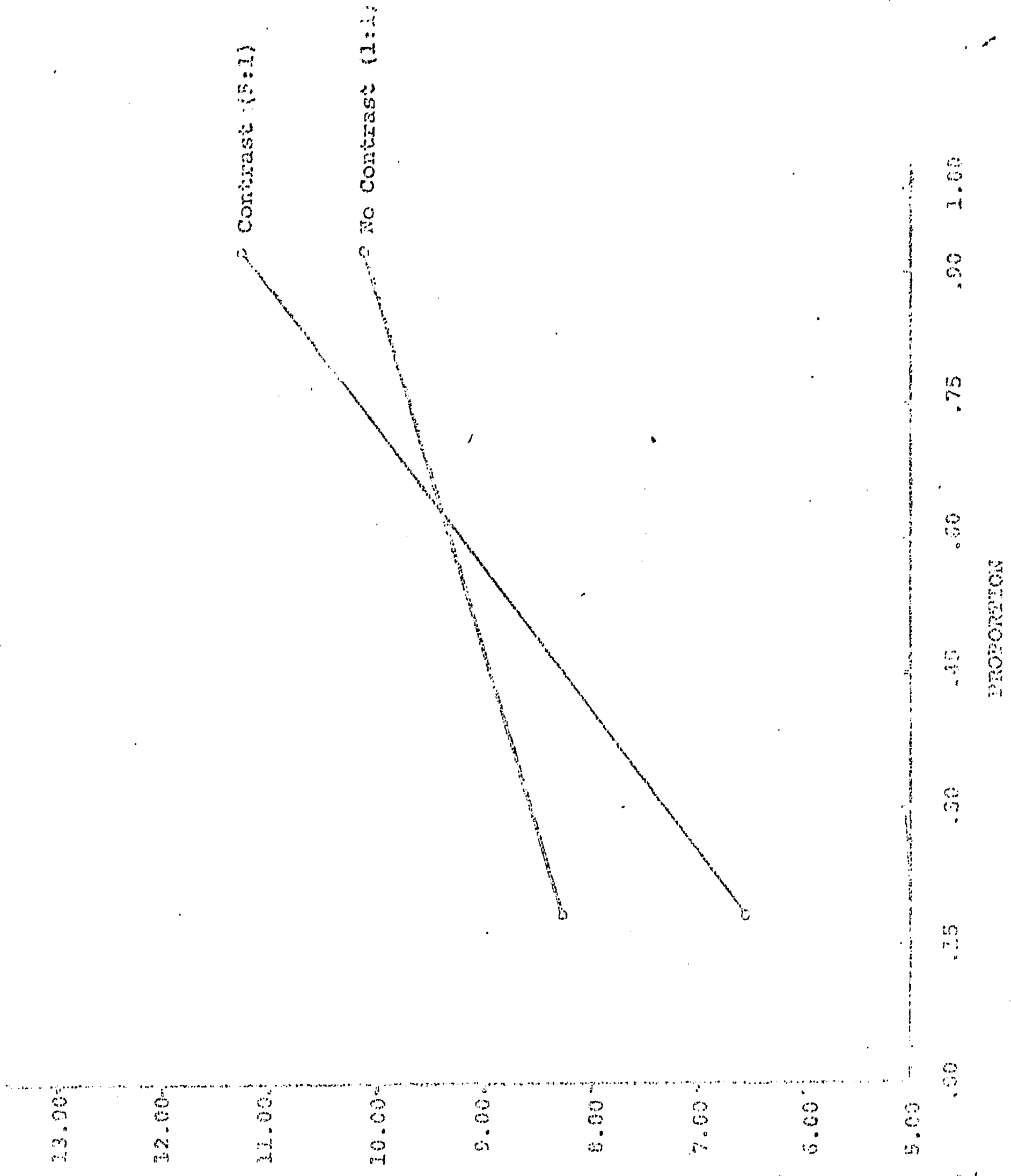
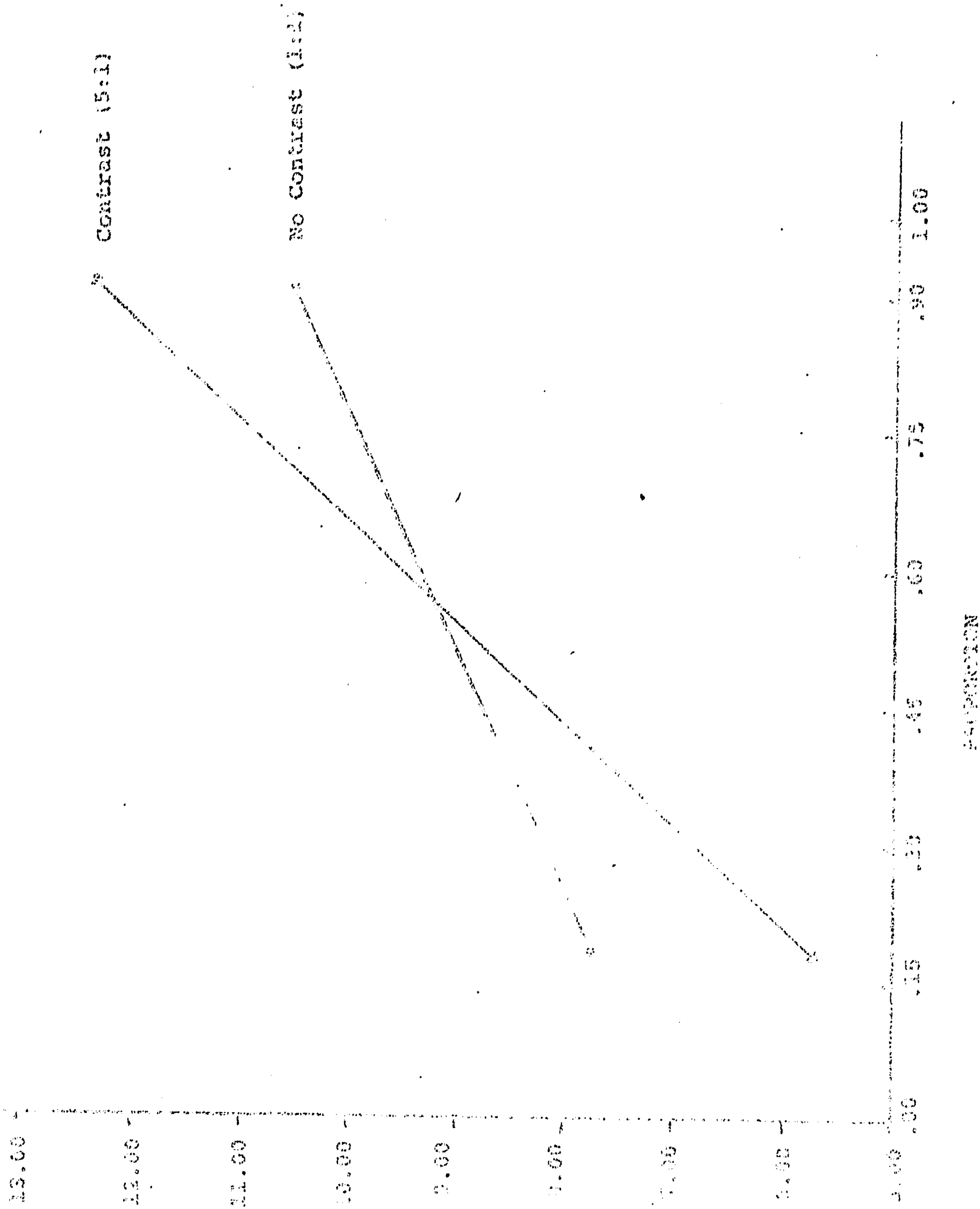


Figure 2



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